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10/687;418	10/16/2003	William E. Welnick	33692.03.3199	7981

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222 N. LASALLE STREET
CHICAGO, IL 60601

EXAMINER

MILLER, BRANDON J

ART UNIT	PAPER NUMBER
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2617

MAIL DATE	DELIVERY MODE
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06/15/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/687,418

Applicant(s)

WELNICK ET AL.

Examiner

Brandon J. Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11,13,14,17,19 and 22-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11,13,14,17,19 and 22-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11, 13-14, 17, 19, and 22-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soliman (US 2003/0060201 A1) in view of Pan et al. (US 2004/0198280 A1).

Regarding claim 11 Soliman teaches a wireless device for producing a pilot strength measurement message (see paragraph [0051]). Soliman teaches a plurality of finger receivers each operative to receive at least one of an active pilot signal and a candidate pilot signal, and in response, operative to generate corresponding measurement data (see paragraphs [0053] and FIG. 3). Soliman teaches a scan search receiver also operative to receive the at least one of the active pilot signal and the candidate pilot signal, and in response, operative to generate corresponding measurement data (see paragraph [0057]). Soliman teaches a pilot strength measurement message generator, operatively coupled to the plurality of finger receivers and to the scan receiver, and operative to produce the pilot strength measurement message including the measurement data if a strongest pilot signal is represented by corresponding measurement data generated by at least one of the plurality of finger receivers is greater than a threshold (see paragraphs [0060] & [0062] – [0063]). Soliman teaches wherein the pilot strength measurement message includes at least the measurement data from the respective plurality of finger receivers

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if the strongest pilot signal represented by the measurement data is less than the first threshold and greater than a second threshold (see paragraphs [0061] – [0065]). Soliman teaches if at least one of a number of candidate pilots is greater than three, and number of active pilots is greater than one, the pilot strength measurement message includes measurement data (see paragraph [0060] – [0065] & [0075]). Soliman does not specifically teach a pilot strength measurement message including long term filtered measurement data or short term measurement data based on pilot signal strength and a pilot strength measurement message including long term or short term filtered measurement data based on a number of pilot signals in the active and candidate set. Pan teaches a filter element that uses long term measurement data or short term measurement data according to the signal strength of the pilot (see paragraphs [0038] – [0040], response time of filter relates to long term or short term measurement data). Pan teaches a filter element that uses long term measurement data or short term measurement data according to characteristics of different pilot signals (see paragraph [0039] – [0040], response time of filter relates to long term or short term measurement data). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a pilot strength measurement message including long term filtered measurement data or short term measurement data based on pilot signal strength and a pilot strength measurement message including long term or short term filtered measurement data based on a number of pilot signals in the active and candidate set because both references disclose using pilot signal strength and a number of pilot signals to update parameters in their respective communication system (see Soliman, paragraphs [0060] – [0061]) and Pan, paragraphs [0038] – [0039]) and the combination would allow for the

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improved optimization of handoff and system access that both references are concerned with see Soliman, paragraph [0002] and Pan, paragraph [0018]).

Regarding claim 13 Soliman teaches wherein the threshold includes a drop threshold plus 3db (see paragraphs [0065] & [0072] and FIG. 5).

Regarding claim 14 Soliman teaches a method for producing a pilot strength measurement message (see paragraph [0051]). Soliman teaches receiving measurement data corresponding to at least one of a plurality of pilot signals (see paragraphs [0060] – [0061]). Soliman teaches producing the pilot strength measurement message based on at least the measurement data, in response to receiving the measurement data corresponding to at least one of a plurality of pilot signals (see paragraph [0060]). Soliman teaches producing the pilot strength measurement message based on at least the measurement data if a strongest pilot signal represented by corresponding measurement data is less than a threshold (see paragraph [0065] & [0069]). Soliman teaches receiving an active set of pilot signals and a candidate set of pilot signals (see paragraphs [0057]). Soliman teaches the producing the pilot strength measurement message includes at least measurement data based on at least one of a number of pilot signals in the active set, and a number of pilot signals in the candidate set (see paragraphs [0060] & [0068]). Soliman does not specifically teach long term filtered measurement data and short term filtered measurement data corresponding to at least one of the plurality of pilot signals, producing a pilot strength measurement message including long term filtered measurement data or short term measurement data based on pilot signal strength, and producing a pilot strength measurement message including long term filtered measurement data or short term measurement data based on a number of pilot signals in the active and candidate set. Pan teaches long term

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filtered measurement data and short term filtered measurement data corresponding to at least one of the plurality of pilot signals (see paragraphs [0039] - [0040], response time of filter relates to long term or short term measurement data). Pan teaches a filter element that uses long term measurement data or short term measurement data according to the signal strength of the pilot (see paragraphs [0038] - [0040], response time of filter relates to long term or short term measurement data). Pan teaches a filter element that uses long term measurement data or short term measurement data according to characteristics of different pilot signals (see paragraph [0039] - [0040], response time of filter relates to long term or short term measurement data). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include long term filtered measurement data and short term filtered measurement data corresponding to at least one of the plurality of pilot signals, producing a pilot strength measurement message including long term filtered measurement data or short term measurement data based on pilot signal strength, and producing a pilot strength measurement message including long term filtered measurement data or short term measurement data based on a number of pilot signals in the active and candidate set because both references disclose using pilot signal strength and a number of pilot signals to update parameters in their respective communication system (see Soliman, paragraphs [0060] - [0061]) and Pan, paragraphs [0038] - [0039]) and the combination would allow for the improved optimization of handoff and system access that both references are concerned with see Soliman, paragraph [0002] and Pan, paragraph [0018]).

Regarding claim 17 Soliman teaches a method for producing a pilot strength measurement message (see paragraph [0051]). Soliman teaches receiving a plurality of pilot

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signals; producing measurement data corresponding to at least one of a plurality of pilot signals (see paragraphs [0060] - [0061]). Soliman teaches producing the pilot strength measurement message including at least measurement data, corresponding to at least one of a plurality of pilot signals, when a strongest pilot signal represented by measurement data is greater than a threshold (see paragraph [0051] & [0060]). Soliman teaches receiving an active set of pilot signals and a candidate set of pilot signals (see paragraphs [0057]). Soliman teaches the producing the pilot strength measurement message includes at least one of the measurement data based on at least one of a number of pilot signals in the active set, and a number of pilot signals in the candidate set (see paragraphs [0060] & [0068]). Soliman does not specifically teach long term filtered measurement data and short term filtered measurement data corresponding to at least one of the plurality of pilot signals, producing a pilot strength measurement message including long term filtered measurement data or short term measurement data based on pilot signal strength, and producing a pilot strength measurement message including long term filtered measurement data or short term measurement data based on a number of pilot signals in the active and candidate set. Pan teaches long term filtered measurement data and short term filtered measurement data corresponding to at least one of the plurality of pilot signals (see paragraphs [0039] - [0040], response time of filter relates to long term or short term measurement data). Pan teaches a filter element that uses long term measurement data or short term measurement data according to the signal strength of the pilot (see paragraphs [0038] - [0040], response time of filter relates to long term or short term measurement data). Pan teaches a filter element that uses long term measurement data or short term measurement data according to characteristics of different pilot signals (see paragraph [0039] - [0040], response time of filter relates to long term or short term

measurement data). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include long term filtered measurement data and short term filtered measurement data corresponding to at least one of the plurality of pilot signals, producing a pilot strength measurement message including long term filtered measurement data or short term measurement data based on pilot signal strength, and producing a pilot strength measurement message including long term filtered measurement data or short term measurement data based on a number of pilot signals in the active and candidate set because both references disclose using pilot signal strength and a number of pilot signals to update parameters in their respective communication system (see Soliman, paragraphs [0060] – [0061]) and Pan, paragraphs [0038] – [0039]) and the combination would allow for the improved optimization of handoff and system access that both references are concerned with see Soliman, paragraph [0002] and Pan, paragraph [0018]).

Regarding claim 19 Soliman teaches receiving an active set of pilot signals and a candidate set of pilot signals (see paragraph [0057]). Soliman teaches producing the pilot strength measurement message including at least measurement data when the strongest pilot signal represented by corresponding measurement data is less than the first drop threshold and greater than the second threshold and at least one a number of candidate pilots is greater than one, and a number of active pilots is greater than two (see paragraphs [0069] & [0075] – [0076]). Soliman does not specifically teach a pilot strength measurement message including long term filtered measurement data based on pilot signal strength and a number of pilot signals in the active and candidate set. Pan teaches a filter element that uses long term measurement data based on signal strength of the pilot and a characteristics of different pilot signals (see

paragraphs [0038] – [0040], response time of filter relates to long term measurement data). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a pilot strength measurement message including long term filtered measurement data based on pilot signal strength and a number of pilot signals in the active and candidate set because both references disclose using pilot signal strength and a number of pilot signals to update parameters in their respective communication system (see Soliman, paragraphs [0060] – [0061]) and Pan, paragraphs [0038] – [0039]) and the combination would allow for the improved optimization of handoff and system access that both references are concerned with see Soliman, paragraph [0002] and Pan, paragraph [0018]).

Regarding claim 22 Soliman teaches wherein the pilot strength measurement message generator is also operative to receive measurement data corresponding to the at least one pilot signal (see paragraph [0051] & [0057]). Soliman teaches wherein the pilot strength measurement message further includes at least the measurement data if a strongest pilot signal represented by corresponding long term filtered measurement is less than a threshold (see paragraphs [0065] & [0069]). Soliman does not specifically teach a pilot strength measurement message including short term filtered measurement data based on pilot signal strength. Pan teaches a filter element that uses short term measurement data based pilot signal strength (see paragraphs [0038] – [0040], response time of filter relates to short term measurement data). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include short term filtered measurement data based on pilot signal strength because both references disclose using pilot signal strength and a number of pilot signals to update parameters in their respective communication system (see Soliman, paragraphs [0060]

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– [0061]) and Pan, paragraphs [0038] – [0039]) and the combination would allow for the improved optimization of handoff and system access that both references are concerned with see Soliman, paragraph [0002] and Pan, paragraph [0018]).

Regarding claim 23 Soliman teaches a circuit for producing a pilot strength measurement message operative to receive measurement data corresponding to at least one pilot signal and, and in response operative to produce the pilot signal strength measurement message (see paragraph [0051] and Fig. 3). Soliman teaches wherein the pilot strength measurement message includes measurement data based on at least one of a number of pilot signals in an active set and a number of pilot signals in a candidate set (see paragraphs [0060] & [0068]). Soliman does not specifically teach both long and short term filtered measurement data corresponding to at least one pilot signal and producing a pilot strength measurement message including long term filtered measurement data or short term measurement data based on a number of pilot signals in the active and candidate set. Pan teaches long term filtered measurement data and short term filtered measurement data corresponding to at least one of a plurality of pilot signals (see paragraphs [0039] - [0040], response time of filter relates to long term or short term measurement data). Pan teaches a filter element that uses long term measurement data or short term measurement data according to characteristics of a number of pilots (see paragraph [0039] – [0040], response time of filter relates to long term or short term measurement data). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include both long and short term filtered measurement data corresponding to at least one pilot signal and producing a pilot strength measurement message including long term filtered measurement data or short term measurement data based on a number of pilot signals in the active and candidate set

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because both references disclose using pilot signal strength and a number of pilot signals to update parameters in their respective communication system (see Soliman, paragraphs [0060] – [0061]) and Pan, paragraphs [0038] – [0039]) and the combination would allow for the improved optimization of handoff and system access that both references are concerned with see Soliman, paragraph [0002] and Pan, paragraph [0018]).

Regarding claim 24 Soliman teaches a pilot strength measurement message that includes measurement data if a strongest pilot signal represented by corresponding measurement data is greater than a threshold (see paragraphs [0060] & [0062] – [0063]). Soliman teaches wherein a pilot strength measurement message includes a measurement data if the strongest pilot signal represented by corresponding measurement data is less than a threshold (see paragraphs [0061] – [0065]). Soliman does not specifically teach including long term filtered measurement data or short term measurement data based on pilot signal strength. Pan teaches a filter element that uses long term measurement data or short term measurement data according to the signal strength of the pilot (see paragraphs [0038] – [0040], response time of filter relates to long term or short term measurement data). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include including long term filtered measurement data or short term measurement data based on pilot signal strength because both references disclose using pilot signal strength and a number of pilot signals to update parameters in their respective communication system because both references disclose using pilot signal strength and a number of pilot signals to update parameters in their respective communication system (see Soliman, paragraphs [0060] – [0061]) and Pan, paragraphs [0038] – [0039]) and the

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combination would allow for the improved optimization of handoff and system access that both references are concerned with see Soliman, paragraph [0002] and Pan, paragraph [0018]).

Regarding claim 25 Soliman teaches a device as recited in claim 13 and is rejected given the same reasoning as above.

Regarding claim 26 Soliman teaches a wireless device for producing a pilot strength measurement message (see paragraph [0051]). Soliman teaches a first receiver operative to receive at least one pilot signal, operative to generate measurement data corresponding to the at least one pilot signal (see paragraphs [0046] & [0051] and FIG. 3, element 254 relates to first receiver). Soliman teaches a second receiver operative to also receive the at least one pilot signal, and in response operative to generate measurement data corresponding to the at least one pilot signal (see paragraphs [0046] & [0051] and FIG. 3, element 256 relates to second receiver). Soliman teaches a pilot strength measurement message generator, operatively coupled to the first receiver and to the second receiver, and operative to produce the pilot strength measurement message including at least measurement data received from the first receiver (see paragraphs [0046] & [0051] and FIG. 3). Soliman teaches a pilot strength measurement message that includes measurement data if a strongest pilot signal represented by corresponding measurement data is greater than a threshold (see paragraphs [0060] & [0062] – [0063]). Soliman teaches wherein a pilot strength measurement message includes a measurement data if the strongest pilot signal represented by corresponding measurement data is less than a threshold (see paragraphs [0061] – [0065]). Soliman does not specifically teach including long term filtered measurement data or short term measurement data based on pilot signal strength. Pan teaches a filter element that uses long term measurement data or short term measurement data according to the signal

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strength of the pilot (see paragraphs [0038] – [0040], response time of filter relates to long term or short term measurement data). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include including long term filtered measurement data or short term measurement data based on pilot signal strength because both references disclose using pilot signal strength and a number of pilot signals to update parameters in their respective communication system because both references disclose using pilot signal strength and a number of pilot signals to update parameters in their respective communication system (see Soliman, paragraphs [0060] – [0061]) and Pan, paragraphs [0038] – [0039]) and the combination would allow for the improved optimization of handoff and system access that both references are concerned with see Soliman, paragraph [0002] and Pan, paragraph [0018]).

Regarding claim 27 Soliman teaches wherein at least one pilot signal includes measurement data based on at least one of a number of pilot signals in an active set and a number of pilot signals in a candidate set (see paragraphs [0060] & [0068]). Soliman teaches wherein producing a pilot strength measurement message (see paragraph [0051]). Soliman does not specifically teach including long and short term filtered measurement data based on a number of pilot signals in the active and candidate set. Pan teaches a filter element that uses long term measurement data or short term measurement data according to characteristics of a number of pilots (see paragraph [0039] – [0040], response time of filter relates to long term or short term measurement data). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include including long and short term filtered measurement data based on a number of pilot signals in the active and candidate set because both references disclose using pilot signal strength and a number of pilot signals to update parameters

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in their respective communication system (see Soliman, paragraphs [0060] – [0061]) and Pan, paragraphs [0038] – [0039]) and the combination would allow for the improved optimization of handoff and system access that both references are concerned with see Soliman, paragraph [0002] and Pan, paragraph [0018]).

Regarding claim 28 Soliman teaches a device as recited in claim 13 and is rejected given the same reasoning as above.

Claim Rejections - 35 USC § 112

Claims 11 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11, lines 17-18 recited, “and if at least one of a number of candidate pilots is greater than three, and a number of active pilots is greater than one”. This limitation does not distinctly claim the subject the subject matter which applicant regards as the invention because does not specifically point out how one candidate pilot can be greater than three. Therefore, the limitation renders the claim indefinite.

Claim 19 is rejected under 35 U.S.C. 112, second paragraph for similar reasons as above.

Response to Arguments

Applicant's arguments with respect to claims 11, 13-14, 17, 19, and 22-28 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J. Miller whose telephone number is 571-272-7869.


The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



June 11, 2007



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SUPERVISORY PATENT EXAMINER